

Argument

To: Examiner of the Patent Office

1. Identification of the International Application

PCT/JP03/12800

2. Applicant

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JAPAN

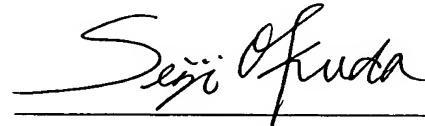
Country of nationality : JAPAN

Country of residence : JAPAN

3. Agent

Name: OKUDA Seiji

Signature



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4. Date of Notification

21.05.04

5. Subject Matter of Argument

5.1. Amendments

An amendment to claim 1 is made to clarify the subject matter of the invention.

Claim 1 is amended to recite that the variation of the sensitivity of the second photodetector is detected when a write power optimization is conducted. Support for this amendment is found at page 20, line 4 through page 24, line 9 of the description. No new matter is introduced by this amendment.

5.2. Present invention

The optical disc drive defined by claim 1 comprises: a laser light source for emitting a laser beam of which the intensity is changeable with the amount of drive current supplied thereto;

a first photodetector, which receives a portion of the laser beam that has been emitted from the laser light source and then reflected from an optical disc, thereby generating a readout signal;

a second photodetector, which receives another portion of the laser beam that has been emitted from the laser light source, generates an electric signal of which the level represents the power of the laser beam received, and outputs the electric signal as a light quantity detection signal; and

a feedback control loop, which compares the level of the light quantity detection signal with a predetermined target value and controls the amount of the drive current so that the level of the light quantity detection signal approaches the target value.

According to the present invention, a variation of the sensitivity of the second photodetector is detected during the procedure in which the best write power is determined. And, when data is read out from the optical disc, the target value is changed so as to compensate for the variation of the sensitivity of the second photodetector.

5.3. Documents cited in the International Search Report

The documents cited in the International Search Report fail to teach or suggest detecting a variation of the sensitivity of the second photodetector, i.e., the monitor sensitivity, when a write power optimization is conducted. In an optical disc drive, determination of the best write power is conducted between the loading of an optical disc and a reading/writing operation. In other words, the variation of the sensitivity of the second photodetector can be detected every time the write power optimization is conducted.

EP0385537A discloses a method of determining the monitor sensitivity of a radiation emitting arrangement. EP0385537A fails to teach or suggest detecting the monitor sensitivity using a write power optimization procedure. The other cited documents do not make up for the deficiency of EP0385537A.

As can be seen from these arguments, the claimed inventions of the present application are novel and involve an inventive step over the documents cited in the International Search Report.

Amendment

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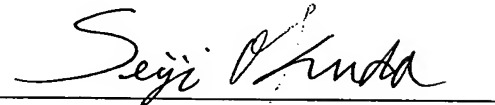
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4. Item to be Amended Claims

5. Subject Matter of Amendment

5.1. Claim 1 is amended as per the attached sheets

5.2. Claims 1-11 are retained unchanged

6. List of Attached Documents Page 33

CLAIMS

1. (Amended) An optical disc drive comprising:

a laser light source for emitting a laser beam of which the intensity is changeable with the amount of drive current supplied thereto;

5 a first photodetector, which receives a portion of the laser beam that has been emitted from the laser light source and then reflected from an optical disc, thereby generating a readout signal;

a second photodetector, which receives another portion of the laser beam that has been emitted from the laser light source, generates an electric signal of
10 which the level represents the power of the laser beam received, and outputs the electric signal as a light quantity detection signal; and

a feedback control loop, which compares the level of the light quantity detection signal with a predetermined target value and controls the amount of the drive current so that the level of the light quantity detection signal approaches the
15 target value,

wherein in reading data from the optical disc, the target value is changed so as to compensate for a variation of the sensitivity of the second photodetector, thereby controlling the power of the laser beam emitted from the laser light source, said variation of the sensitivity of the second photodetector being
20 detected when a write power optimization is conducted.